

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 10-29 are pending; Claims 10 and 11 are amended; and no claims are newly added or canceled herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, the drawings were objected to; Claim 10 was objected to; and Claims 10-29 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ross (U.S. Pat. No. 5,983,384) in view of Doetsch et al. (U.S. Pat. No. 6,571,366, herein Doetsch).

Applicants thank Examiner Abraham and Supervisory Examiner DeCady for the interview granted Applicants' representative on February 25, 2004.<sup>1</sup>

With regard to the objections to the drawings, Applicants have filed substitute drawing Figures 1-7. It is therefore respectfully requested that this objection be withdrawn.

Regarding the objection to Claim 10, it was agreed during the interview that this objection would be withdrawn.

With regard to the rejection of Claims 10-29 under 35 U.S.C. § 103(a) as unpatentable over Ross in view of Doetsch, that rejection is respectfully traversed.

In the past, it was possible to obtain effective error correction while retaining sufficiently high efficiencies and allowing decoding operations of low complexity compared with the complexity of the code. However, it is known that the performance of a transmission using an error correcting code varies according to the transmission conditions. Such transmission conditions include parameters influencing the performance of the

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<sup>1</sup> Although the interview is dated February 25, 2002 on the Interview Summary Form, the interview occurred on February 25, 2004, as evidenced by the Examiner's signature and date found at the bottom of the Interview Summary Form.

transmission, such as the signal-to-noise ratio, the bit or packet error rate, the signal-to-interference plus noise ratio, the number of active users of a telecommunications system, the quality of service required by the transmission system, and the speed of movement of the user of the transmission system, as well as other parameters.

In the past, adaptation to the transmission conditions was performed by decreasing or increasing the efficiency in order to make the code more or less robust according to if the channel was more or less severe. To avoid modifying the structure of the coder, puncturing was used. To each efficiency, there corresponds a unique puncturing scheme. However, different codes have different non-uniform performances, when they are compared to equal efficiency, depending on transmission conditions.<sup>2</sup>

To overcome these difficulties, an object of the claimed invention is to adapt a transmission method of the error correcting coding type according to the transmission conditions by modifying the distribution of the redundant information at constant efficiency. To this end, the depuncturing scheme corresponds to the optimum performance puncturing scheme amongst a plurality of predetermined depuncturing schemes, the overall efficiency of the coding procedure associated with the at least one puncturing step being a constant efficiency.<sup>3</sup>

Neither Ross nor Doetsch, either alone or in combination, discloses or suggests depuncturing based on the at least one parameter, as recited in Claim 1. During the interview, it was indicated that depuncturing the coded information based on the at least one parameter is inherent in the cited references. However, as set forth in MPEP § 2112, "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." (emphasis in original). In re Rijckaert, 9 F.3d 1531, 1534 (Fed. Cir. 1993).

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<sup>2</sup> Specification, page 5, lines 19-30.

<sup>3</sup> Id. at page 7, lines 1-3 and 15-22.

Moreover:

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999).

Additionally, "in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464, Bd. Pat. App. & Inter. (1990) (emphasis in original).

Because no such basis in fact and/or technical reasoning has been provided in the outstanding Office Action, it is respectfully submitted that the next Office Action cannot be a final rejection, as the outstanding Office Action has not satisfied the burden set forth in MPEP § 2112.

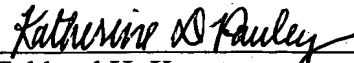
Accordingly, as neither Ross nor Doetsch, either alone or in combination, discloses or suggests depuncturing the coded information based on the at least one parameter, it is respectfully submitted that Claims 10-29 patentably distinguish over the applied combination of Ross and Doetsch. It is therefore respectfully requested that this rejection be withdrawn.

Moreover, the Office Action again fails to cite to any teachings within either of the references to support the applied combination. It is therefore respectfully submitted that the applied combination of Ross and Doetsch is based upon hindsight reconstruction, and is improper.

Consequently, in view of the foregoing discussion and present amendments, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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